CLAIMS:

What is claimed is:

1. A system for testing integrated circuits, comprising:

a source of chilled fluid;

a cold plate connected to the source of chilled fluid such that the temperature of the cold plate is reduced by the chilled fluid;

at least one heater connected to the cold plate such that the at least one heater supplies heat to the cold plate;

wherein the cold plate is placed in proximity to the integrated circuit to change the temperature of the integrated circuit.

2. The system of claim 1, wherein temperature control of the integrated circuit is accomplished on a coarse level by adjusting fluid temperature and/or fluid flow rate, and wherein temperature control of the integrated circuit is accomplished on a fine level by altering the output of the at least one heater.

3. The system of claim 1, wherein the at least one heater is responsive to an on chip temperature sensor of the integrated circuit through a feedback loop.

4. The system of claim 1, wherein a surface of the cold plate is pressed against a surface of the integrated circuit to form an interface, and wherein a gas is injected at the cold plate integrated circuit interface.

5. The system of claim 1, wherein a surface of the cold plate is pressed against a surface of the integrated circuit by a high pressure load; and

wherein the surface of the cold plate is smaller in area than the surface of the integrated circuit; and wherein the surface of the cold plate area is as large as possible while still being smaller than the surface of the integrated circuit.

6. The system of claim 1, wherein the cold plate is connected to the source of chilled fluid by pipes, the pipes being covered with insulation such that condensation does not form on the pipes.

7. A method of testing an integrated circuit, comprising the steps of:

supplying a chilled fluid to a cold plate, the cold plate being movable to be in contact with an integrated circuit;

supplying energy to at least one heater, the at least one heater being connected to heat the cold plate;

wherein the integrated circuit is maintained at a first temperature by varying energy supplied to the at least one heater.

8. The method of claim 7, wherein the at least one heater is a cartridge heater embedded in the cold plate.

9. The method of claim 7, wherein the at least one heater responds to a feedback loop based on the output of an on chip temperature sensor of the integrated circuit.

10. The method of claim 7, wherein temperature control of the integrated circuit is accomplished on a coarse level by adjusting the fluid temperature and/or fluid flow rate, and wherein temperature control of the integrated circuit is accomplished on a fine level by altering the output of the at least one heater.

11. The method of claim 7, wherein a surface of the cold plate is pressed against a surface of the integrated circuit to form an interface, and wherein a gas is injected at the cold plate integrated circuit interface.

12. The method of claim 12, wherein a surface of the cold plate is pressed against a surface of the integrated circuit by a high pressure load; and

wherein the surface of the cold plate is smaller in area than the surface of the integrated circuit; and wherein the surface of the cold plate area is as large as possible while still being smaller than the surface of the integrated circuit.

13. The method of claim 7, wherein the cold plate is supplied with chilled fluid by pipes, the pipes being covered with insulation such that condensation does not form on the pipes.

14. A system for testing integrated circuits, comprising:

a card for receiving an integrated circuit;

an enclosure for limiting air movement near the integrated circuit, the enclosure substantially enclosing the integrated circuit and a cold plate, the cold plate being supplied with chilled fluid;

wherein a dry gas is injected into the enclosure.

15. The system of claim 14, wherein the dry gas is injected into the enclosure by nozzles positioned so as to establish a rotational gas flow pattern within the enclosure.

16. The system of claim 14, wherein the dry gas is injected into the enclosure at a rate sufficient to maintain the relative humidity within the enclosure at levels preventing condensation on metal surfaces.

17. The system of claim 14, wherein the card for receiving the integrated circuit includes at least one heater connected to deliver heat to a backside of the card, wherein the backside of the card is outside the enclosure.

18. The system of claim 14, wherein the cold plate is supplied with chilled fluid through chilled fluid lines, the chilled fluid lines enter the enclosure at openings, and wherein the openings are concentrically aligned with the fluid lines and insulation on the fluid lines when the cold plate is pressed against the integrated circuit for testing.

19. The system of claim 14, further comprising a control box having hoses which pass through the control box, at least some of the hoses carrying chilled fluid; and

wherein a dry gas is injected into the control box.

20. A method for testing integrated circuits, comprising the steps of:

supplying a cold plate with a chilled fluid;

enclosing at least the cold plate and an integrated circuit within an enclosure;

supplying the enclosure with a dry gas.

21. The method of claim 20, wherein the dry gas is injected into the enclosure by nozzles positioned so as to establish a rotational gas flow pattern within the enclosure.

22. The method of claim 20, wherein the dry gas is injected into the enclosure at a rate sufficient to maintain the relative humidity within the enclosure at levels preventing condensation on metal surfaces.

23. The method of claim 20, wherein the integrated circuit is positioned in a card, and wherein the card includes at least one heater connected to deliver heat to a backside of the card, wherein the backside of the card is outside the enclosure.

24. The method of claim 20, wherein the cold plate is supplied with chilled fluid through chilled fluid lines, the chilled fluid lines enter the enclosure at openings, and wherein the openings are concentrically aligned with the fluid lines and insulation on the fluid lines when the cold plate is pressed against the integrated circuit for testing.

25. The method of claim 20, wherein a control box is injected with a dry gas, the control box having hoses which pass through carrying chilled fluid.

26. A heat sink for separating hoses entering a housing, comprising:

a first surface, the first surface being mountable against the housing where hoses are to enter the housing;

a first plurality of holes through the first surface for passage of a first plurality of hoses through the first surface;

a plurality of flanges positioned between the first plurality of holes such that hoses passing through the first surface of the heat sink are separated from one another by the plurality of flanges.

27. The heat sink of claim 26, wherein the first plurality of holes non-adhesively retains insulation of the first plurality of hoses such that air access through the first plurality of holes is reduced.